Chapter III

Affected Environment / Environmental Consequences

Methodology and Structure of Chapter
Cultural Resources
Natural & Ecological Resources
Park Operations & Administration
Cost Summary by Alternative

III. Affected Environment / Environmental Consequences

This chapter describes the consequences of the proposed alternatives on the affected environment. For the purposes of this evaluation, the affected environment includes the following resource categories: cultural resources (historic structures, cultural landscapes and archeological resources), natural and ecological resources (vegetation, wildlife and habitats, rare, threatened and endangered species, water resources, wetlands and water quality) and park operations and administration.

Agency Consultation for Natural and Cultural Resources

Part of complying with specific laws that govern natural and cultural resources at the park is to inform relevant state and federal agencies of the study underway and the proposed preferred alternative and request relevant information and identification of potential issues and constraints such as threatened species. The park has sent letters to the US Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, the Virginia Office of Environmental Impact Review, the Virginia Department of Conservation and Recreation and the Virginia Department of Historic Resources. The park will continue to consult with these agencies, as with the public, through the implementation of the preferred alternative.

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Methodology and Structure of Chapter

The chapter is organized by resource category. For each resource type, the following information is provided:

Laws & Policies

A description of the relevant, laws, regulations, policies and guidelines associated with each resource, and how the park is complying with them.

Affected Environment

A description of current resource conditions as they exist within the project area. Information is derived from the reports and studies referenced in the bibliography as well as site visits and the knowledge of park staff.

Impact Intensity

A discussion of impact intensity and the definition of differing levels of impact including negligible, minor, moderate or major impact. Intensity levels vary by resource category.

Impact Assessment

An assessment of the potential impacts—environmental consequences—of each alternative on the specific resource type. Alternatives are evaluated using the defined intensity scale and in consideration of impact duration—short versus long-term.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values.

Cumulative Impacts and Conclusions

An assessment of the cumulative impacts associated with each alternative. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). The actions considered in the impact analyses of cumulative impacts include the lead abatement project, planned energy efficiency improvements and the ongoing USFWS "Compatibility" Determination process. Each of those projects is fully explained in Chapter One, under section 'e'.

Since the USFWS "Compatibility" process would continue regardless of any of the alternatives and have no impacts on any of the alternatives, it will not be further evaluated as part of the cumulative impact analysis.

Summary findings for each major resource category are presented in a conclusion, including a determination of whether the alternative would result in resource impairment.

Impairment

In addition to determining the environmental consequences of the alternatives, the *2001 NPS Management Policies and Director's Order-12* require an analysis to determine if actions would impair park resources and values. Typically, impacts with the potential for impairment would be determined to be major, or occasionally moderate in intensity in NEPA impact analyses; impacts of a negligible to minor intensity would not have the potential for impairment.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park resources and values. However, the laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values.

A prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified as a goal in the park's Master Plan or General Management Plan or other relevant NPS planning documents.

A. Cultural Resources

The National Park Service is the steward of many of America's most important cultural resources. These resources are categorized as archeological resources, cultural landscapes, ethnographic resources, historic and prehistoric structures, and museum collections.

The cultural resource management policies of the National Park Service are derived from a suite of historic preservation and other laws, proclamations, Executive Orders, and regulations.

The cultural resource management policies of the National Park Service are derived from a suite of historic preservation and other laws, proclamations, Executive Orders, and regulations. Two such mandates are provided below. Taken collectively, they provide the Service with the authority and responsibility for managing cultural resources in every unit of the national park system so that those resources may be preserved unimpaired for future generations. Cultural resource management would be carried out in a manner consistent with legislative and regulatory provisions, and with implementing policies and procedures such as the Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act (63 FR 20497-508).

The Station House.

National Historic Preservation Act (NHPA) 1966, (16 USC 470), as amended, Section 106—
Section 106 of NHPA requires federal agencies to consider the impacts of their proposals on historic properties, and to provide state historic preservation officers, tribal historic preservation officers, and, as necessary, the Advisory Council on Historic Preservation a reasonable opportunity to review and comment on these actions.

The park maintains an active relationship with the Virginia State Historic Preservation Officer (SHPO) regarding cultural resource issues and has sent a letter to the Officer regarding the initiation of this Environmental Assessment and the intention of using this document for compliance with Section 106.

Director's Order #28: Cultural Resource Management—
This Director's Order was issued pursuant to 16 U.S.C. 1et seq, the National Park Service Organic Act, and requires the NPS to protect and manage cultural resources in its custody through a comprehensive program of research, planning, and stewardship and in accordance with the policies and principles contained in the NPS *Management Policies*. The Order also requires the NPS to comply with the substantive and procedural requirements described in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and with the 1995 Servicewide Programmatic Agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers.

The park actively manages its cultural resources by conducting research to identify, evaluate, document and register basic information about cultural resources and traditionally associated peoples, and sets priorities for stewardship to ensure resources are protected, preserved, maintained and made available for public understanding and enjoyment. The park consults, coordinates and cooperates with outside entities where appropriate regarding cultural and ethnographic research and documentation.

Determination of Eligibility for Listing on the National Register of Historic Places—
In order for a structure, building or landscape to be listed in the National Register of Historic Places, it must be associated with an important historic context, i.e. possess significance - the meaning or value ascribed to the structure or building, and have integrity of those features necessary to convey its significance, i.e. location, design, setting, workmanship, materials, feeling, and association.

The Assateague Beach Coast Guard Station was determined by the Acting Keeper of the National Register to be eligible for listing on the National Register of Historic Places on January 15, 1980. This determination was based upon the finding that "The complex of buildings which collectively are known as the Assateague Beach Coast Guard Station is architecturally significant as a representative example of early 20th century U. S. Coast Guard buildings constructed primarily to execute the boat and life rescue service provided along the coastline. As a type of building, their simple, frame construction takes a vernacular form which reflects some influence of the Colonial Revival style, indicative of their period of design." The cultural landscape was also found eligible for the National Register in 2004.

Having been determined eligible, the property is covered by the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended. All NPS actions affecting the Coast Guard Station are reviewed by NPS cultural resource specialists, and the SHPO is consulted as appropriate. The property must be formally nominated to the National Register under current standards, an effort which would address any relevant contexts in addition to the architectural significance cited in the Determination of Eligibility.


Christine Gobrial, NPS.

The Assateague Beach Coast Guard Station was determined by the Acting Keeper of the National Register to be eligible for listing on the National Register of Historic Places on January 15, 1980.

1. Historic Structures

Assateague Beach Coast Guard Station House

The Station House served as headquarters for US Coast Guard operations at Assateague Beach from 1922 to 1967 and represents a fine example, in relatively good condition, of a period Coast Guard Station located in a protected area, from which the crews could perform rescue operations.

The Station House is a plainly-detailed rectangular structure that faces the Atlantic Ocean approximately 150 yards to the south. The building is 2.5 stories, set on a high basement, measures 40 X 26 feet and has a gable-on-hip roof with a wide overhang. The Station House has four exterior doorways, the main entrance on the south façade at an intermediate level between the basement and first story; a side entrance on the west elevation; a rear entrance on the north elevation; and a basement opening on the east elevation. The doors and window openings are placed in a balanced arrangement along the south façade and on the east and west elevations of the building. One-story hip-roof porches protect the main entrance and the west elevation, and a small porch landing is located outside the rear doorway on the north elevation.

Two large water tanks stand on open-framed bases near the building's north (rear) elevation. Each water tank measures 8 feet in diameter and

approximately 12 feet in height and has a conical roof with a decorative finial. All three floors of the interior are arranged around a stair hall centered on the building's south wall. The main exterior doorway on the south façade opens into an entry or foyer, from which short flights of six steps each lead up to a hall on the first floor and down to the basement. On the first floor, to the east of the hall are the crew's mess room, through which is accessed the kitchen in the northeast corner of the building. To the west of the hall are the keeper's office, bedroom and bathroom. On the basement level, a boiler room and two storage rooms are located to the east of the hall; to the north of the hall is a small laundry (the former crew's bathroom) and the to west are the pump room (the former laundry) and the storm clothes room. The second floor contains a hall, bathroom, and four bedrooms.

Boat house and park staff.

Assateague Beach Coast Guard Station Boathouse

The boathouse was the hub of Coast Guard operations and provided a dry storage area for boats and space for working on them. The structure, in good overall condition, is an excellent example of a Colonial Revival-type boathouse located in a protected area from which the crew could perform rescue operations.

The boathouse is a hip-roofed rectangular structure that stands on pilings at the edge of Tom's Cove to the north of the Station House. The building is 1.5 stories tall, measures approximately 46 X 62 feet and is decorated with restrained Colonial Revival styling. The building has two façades, the south is oriented towards the Station House and the north faces Tom's Cove. Each façade is divided into three bays.

The main pedestrian entrance to the boathouse is a single-wide doorway centered on the south façade that is protected by a pedimented gable-roofed porch. One window opening is positioned on either side of the main entrance and porch. Three wide doorways with overhanging doors span the north façade of the building. These doorways are for the passage of boats and there is a launchway leading down from the doorways to the water of Toms Cove. Five window openings are symmetrically placed along each of the east and west elevations and three dormers evenly placed along each of the east and west roof slopes.

Catwalks surround the south, east and west sides of the building, with the east and west walkways extending out beyond the boat launchway. A "T-Head" pier extends parallel to the east catwalk out into the cove. The outermost portion of the pier was extensively damaged by storms in 1991 and 1992, and has not yet been repaired.

The north façade of the building was divided into three bays, each occupied by a large, overhead glazed door composed of seven rows of seven recessed panels. A pair of steel "runners" led from each boat doorway down the launchway to the water.

A large cylindrical water tank stands on pilings to the west of the catwalk along the building's south elevation. The structure measures approximately 12 feet in

diameter and 11 feet high and has a conical roof topped by a decorative finial.

Assateague Beach Coast Guard Station Garage

The Station garage.

The garage was the original boathouse for the Station. The building is a rectangular hip-roof structure situated approximately 100 yards to the south of the Station house. The plainly detailed building is 1.5 stories tall and measures 23 feet X 39 feet. The garage has two façades: the south façade with two double-wide doorways was the original boat entrance and is oriented to the Atlantic Ocean to the south; the east façade, labeled a "cart" entry on the 1922 construction drawings, is also the main pedestrian entrance and is oriented toward the access road to the east.

A large cylindrical water tank stands on pilings off the southeast corner of the garage. The water tank measures 10 feet in diameter and approximately 11 feet high and has a conical roof topped with a decorative finial.

The garage is currently in poor condition, owing to deteriorated roofing and lack of overall maintenance.

Assateague Beach Coast Guard Tower

The Station tower.

The tower was originally built in 1922 and enlarged from two to three stories tall in 1938. Before the use of radar, the tower served to direct vessels from dangerous shoals and to keep a look-out for vessels already in distress. The tower also served in policing duties of the Guard, observing a stranded boat to prevent its being stripped. During World War II, the tower was used for round-the-clock watches. The tower is 37 feet high, constructed of steel angles resting on four concrete pads and topped by a 12 foot square wooden platform with a 7 foot square frame structure. The observation room has windows on all four sides and is accessed by a wooden stairway. With the exception of recent, minor damages caused by a lighting strike, the tower is in fair overall condition.

Assateague Beach Coast Guard Station Generator Building

The concrete block electric generator building was built in 1959 and is connected to the Station house by a concrete walk. It is a simply designed structure with a single entrance door, approximately 12 X 15 feet in size, with a low pitch flat roof. Because the structure is less than 50 years old, it does not currently meet the eligibility requirement for the national register.

The Station generator house.

Definitions of Intensity Levels for Historic Structures

Negligible

Impact is at the lowest levels of detection—barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor

Adverse impact: impact would be perceptible but would not affect the character defining features of a National Register of Historic Places eligible or listed structure or building. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Beneficial impact: stabilization/ preservation of character defining features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, to maintain existing integrity of a structure

or building. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate

Adverse impact: impact would alter a character defining feature(s) of the structure or building but would not diminish the integrity of the resource to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Beneficial impact: rehabilitation of a structure or building in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, to make possible a compatible use of the property while preserving its character defining features. For purposes of Section 106, the determination of effect would be *no adverse effect.*

Major

Adverse impact: impact would alter a character defining feature(s) of the structure or building, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*.

Beneficial impact: restoration in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, to accurately depict the form, features, and character of a structure or building as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect.*

Impacts to Historic Structures by Alternative

Alternative A: No-Action

The Station house, boathouse, garage, tower and generator building would be minimally maintained in their current conditions resulting in minor long-term adverse impacts to the structures as individual resources. Minimum maintenance could include painting, roof and foundation stabilization and weatherproofing where appropriate. While the character-defining features of the structures would be maintained so as to keep the resources eligible for listing on the National Register, no actions beyond basic stabilization would take place and gradual deterioration over the long term is likely. For purposes of Section 106, this constitutes no adverse effect.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitation of the structures for adaptive use would follow all the Secretary of the Interior's Standards for Historic Preservation. Rehabilitating the structures to accommodate various compatible uses such as research and educational programs would not diminish the exterior character defining features or the cultural landscape. The increase in resources available for long term maintenance, repair and restoration from a partnering organization would result in moderate long-term beneficial impacts to the structures. Beneficial impacts would also be realized through use of the structures because occupancy and care help preserve the structures. For purposes of Section 106, this constitutes no adverse effect.

Alternative C: Relocation

Relocation of the structures would lead to a loss of integrity of the resources and cause major long-term adverse impacts. The individual structures as well as the complex as a whole would no longer be eligible for the National Register of Historic Places. As in the CLI analysis, an integral part of the complex's eligibility to the National Register is the both the relationship of the complex to

Rehabilitation of the structures for adaptive use would follow all the Secretary of the Interior's Standards for Historic Preservation.

the landscape as well as the relationship of the structures to each other. For purposes of Section 106, this constitutes an adverse effect.

Alternative D: Demolition

Demolition of the structures would have a major permanent adverse impact. The resources would not be available for visitation or interpretation except through documentation such as photographs and drawings. Pursuing this alternative would eliminate any National Register eligibility. For purposes of Section 106, this constitutes an adverse effect.

Cumulative Impacts on Historic Structures

The lead abatement and energy efficiency projects would have positive, long-term minor to moderate impacts on historic structures for all the alternatives. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements will provide for more reliable and efficient power under Alternatives A, B and C as well as help to lengthen the life of the structures by replacing or repairing deteriorated components of doors and windows. In Alternative D, the energy efficiency project would not be relevant regarding the structures.

2. Cultural Landscapes

A cultural landscape is a reflection of human adaptation and use of natural resources. It is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and types of structures that are built. The character of a cultural landscape is defined by physical materials such as roads, buildings, walls, and vegetation and by use reflecting cultural values and traditions. Shaped through time by historical land use and management practices, cultural landscapes provide a visual record of an area's past. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes. They are a good source of information about specific times and places, but at the same time, their long-term preservation is a challenge.

The Boat House.

The Coast Guard Station is considered to be an individual landscape within the park. A Cultural Landscape Inventory (CLI) report—a comprehensive inventory of historically significant landscapes and landscape features—for the Station was prepared in 2004. The Station landscape and its features were found to be in fair overall condition, and determined eligible for the National Register of Historic Places. The Virginia SHPO concurred with the eligibility determination.

The Station complex is an individual landscape, containing within it both systems and features. It is not just the structures themselves, but their siting in relation to each other and the landscape—including vegetation and views—that make the Station complex unique. "Views to and from the property add to the story of the Coast Guard history by providing a visual of how life may have been for the life-savers of the surf on an isolated barrier island along the Atlantic coast." (CLI, Part 3a, page 1). Features contributing to the significance of the Station landscape are summarized in Appendix B.

Definitions of Intensity Levels for Cultural Landscapes

Negligible

Impact is at the lowest levels of detection, barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor

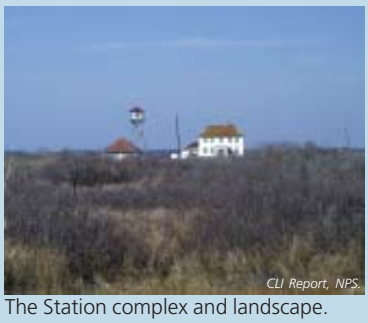
Adverse impact: impact is perceptible but would not affect the character defining features of a National Register of Historic Places eligible or listed cultural landscape. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact: preservation of character defining features in accordance with the Secretary of the Interior's standards, to maintain existing integrity of the cultural landscape. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate

Adverse impact: impact would alter a character defining feature(s) of the cultural landscape but would not diminish the integrity of the landscape to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact: rehabilitation of a landscape or its features in accordance with the Secretary of the Interior's standards, to make possible a compatible use of the landscape while preserving its character defining features. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major

Adverse impact: impact would alter a character defining feature(s) of the cultural landscape, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact: restoration in accordance with the Secretary of the Interior's standards, to accurately depict the features and character of a landscape as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect*.



The Station complex and landscape.

Impacts to Cultural Landscapes by Alternative

Alternative A: No-Action

Continuing with current management practices to minimally stabilize resources without undertaking substantive restoration or rehabilitation would have moderate adverse impacts on the cultural landscape with a Section 106 finding of no adverse effect. Under this alternative the park would continue to maintain the cultural landscape to keep it eligible for the National Register, but some character-defining features such as circulation patterns would continue to deteriorate and eventually be lost as natural forces slowly gain the upper hand. Features such as views and vistas would not be altered by the park, but funding would not be available for more substantive measures such as restoration of the damaged pier and boat dock. The impacts to the cultural landscape under this alternative would be long-term, spanning the life of the resource for the foreseeable future.

Alternative B: Rehabilitation for Adaptive Use

Long-term, moderate beneficial impacts would result from rehabilitation of the

Station complex for adaptive use with a Section 106 finding of no adverse effect. Under this alternative, most or all of the contributing landscape features would be maintained or rehabilitated to reflect the Station's period of significance. The views and vistas would remain unchanged, except as natural forces affect the landscape.

Alternative C: Relocation

Major long-term adverse impacts would result if the Station were relocated away from the cultural landscape on which it was created, with a Section 106 finding of adverse effect. The Station would no longer be eligible for the National Register of Historic Places if moved from its contextual setting. Many of the character-defining features that contribute to and are an integral part of the Station's cultural landscape—views and vistas, natural features and systems, topography and vegetation—would no longer be part of the complex. Furthermore, it would be unlikely that the spatial organization would be maintained in the new location or that structures such as the tower or garage would be moved along with the complex.

Alternative D: Demolition

Major adverse permanent impacts would result if the Station complex were demolished. Under this alternative, a National Register eligible resource would be lost. The cultural landscape would be irretrievably altered. For purposes of Section 106, this constitutes and adverse effect.

Cumulative Impacts on the Cultural Landscape

The lead abatement and energy efficiency projects would have positive, long-term minor to moderate impacts on the cultural landscape for all the alternatives, except D. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements will provide for more reliable and efficient power under all the alternatives as well as help to lengthen the life of the structures by replacing or repairing deteriorated components of doors and windows. In Alternative D, the energy efficiency project would not be relevant regarding the cultural landscape.

The Federal archeology program is a general term that includes interpretation programs, collections care, scientific investigations, protection efforts, and public education and outreach efforts.

3. Archeological Resources

The archeological record—the sites and objects left by those who came before us—provides tangible evidence of the diverse cultural heritage of the U.S. The peoples who lived long before us, their religions, technologies, and houses, and the environments in which they lived can all be discovered through archeology.

The Federal archeology program is a general term that includes interpretation programs, collections care, scientific investigations, protection efforts, and public education and outreach efforts. The program covers activities on federal and tribal land, as well as federally financed, permitted, or licensed actions on nonfederal land. Authorities, regulations, and guidelines define these activities to preserve, properly treat, and protect archeological sites and objects, such as the **Archeological Resources Protection Act of 1979, as amended (Public Law 96-95)** and the National Historic Preservation Act, especially Sections 106 and

110. The archeological work involves the identification, evaluation, and nomination of historic properties to the National Register of Historic Places. The foundation for these activities and programs was laid by the authorities and protections provided by the **Antiquities Act of 1906, 16-USC 431-433**.

Seabord ruins.

The Station complex has not yet been systematically inventoried for archeological resources. In any future action involving ground disturbance the potential for impacts would be assessed as per NPS guidelines. The area has potential to yield a variety of artifacts belonging to some of the earliest crews at the station.

A historical archeological survey was prepared for the park in 1984 for four sites within the park: North Beach Life-Saving Station, Scott's Ocean House Hotel, Green Run Inlet Cemetery and the Seabord Fish Oil and Guano Company. Of the four, the Seabord site—a former factory built in 1912—is the only one in proximity to the Station, located just north of it on the hook. The factory was destroyed in a fire in 1916 and never rebuilt. The site is considered a ruin, with some concrete footings and wood pilings remaining above the surface. The site is recognized locally and is on the National Park Service List of Classified Structures (historic structures and sites located on NPS lands) but was determined not eligible for the National Register.

Definitions of Intensity Levels for Archeological Resources

Negligible

Impact is at the lowest levels of detection, barely measurable with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor

Adverse impact: disturbance of a site(s) is confined to a small area with little, if any, loss of important information potential. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact: preservation of a site(s) in its natural state. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate

Adverse impact: disturbance of the site(s) would not result in a substantial loss of important information. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact: stabilization of the site(s). For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major

Adverse impact: disturbance of the site(s) is substantial and results in the loss of most or all of the site and its potential to yield important information. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact: active intervention to preserve the site. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Impacts to Archeological Resources by Alternative

Alternative A: No-Action

Maintaining current levels of management and use at the Station complex would have long-term negligible to minor beneficial impacts to any potential

archeological resources; for purposes of Section 106, this constitutes no adverse effect.
Maintaining current levels of management would have minor long-term beneficial impacts on the Seaboard ruin. Rangers would continue to periodically patrol the area, preventing vandals from interfering with the natural evolution of the site. For purposes of Section 106, this constitutes no adverse effect.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitating the station complex would have minor short-term adverse impacts to potential archeological resources. Any ground disturbing activities would be assessed for their potential impact on unknown archeological resources. The park would implement all NPS guidelines to survey, evaluate and mitigate potential archeological resources and if possible avoid them altogether. For purposes of Section 106, this constitutes no adverse effect.

The park would implement all NPS guidelines to survey, evaluate and mitigate potential archeological resources and if possible avoid them altogether.

Rehabilitating the Station complex would have minor beneficial long-term impacts on the Seaboard ruin. Similar to alternative A, rangers would continue to patrol the area, deterring vandals. For purposes of Section 106, this constitutes no adverse effect.

Alternative C: Relocation

The relocation of the structures would necessitate significant ground disturbance which could result in moderate adverse impacts in the short-term to potential archeological resources at the Station complex. For purposes of Section 106, this constitutes an adverse effect and mitigation measures would be implemented in consultation with the Virginia SHPO and the ACHP.

Once the Station Complex is removed and mitigation measures have been implemented to any disturbed archeological resources, the resources could experience minor to moderate long-term beneficial impacts from preservation and stabilization mitigation actions. For purposes of Section 106, this constitutes no adverse effect.

Relocating the Station complex could have the potential for long-term minor adverse impacts on the Seabord site. In this alternative, rangers would have less occasion or reason to visit the complex site, making the area including the Seaboard ruin more prone to disturbance by vandals. For purposes of Section 106, this constitutes no adverse effect.

Alternative D: Demolition

Demolition of the Station complex could have similar impacts to archeological resources as in Alternative C. Demolition could necessitate significant ground disturbance which could result in moderate adverse impacts in the short-term to potential archeological resources at the Station complex. For purposes of Section 106, this constitutes an adverse effect and mitigation measures as those described in Alternative C would be implemented.

Similar to Alternative C, once the Station Complex is removed and mitigation measures have been implemented to any disturbed archeological resources, the resources could experience minor to moderate long-term beneficial impacts

from preservation and stabilization mitigation actions. For purposes of Section 106, this constitutes no adverse effect.
Also as in Alternative C, with the Station removed, there would be less ranger oversight in this area of Assateague Island, making the area including the Seaboard ruin more prone to disturbance by vandals in the long-term, potentially leading to minor adverse impacts. For purposes of Section 106, this constitutes no adverse effect.

Cumulative Impacts on Archeological Resources

Neither the lead abatement nor the energy efficiency projects will have an impact, positive or negative, on archeological resources in any of the alternatives.

Impairment

For the purposes of this analysis impairment is defined as a major, adverse impact to a resource or value whose conservation is:

(1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Assateague Island National Seashore;
(2) key to the natural or cultural integrity of the park; or
(3) identified as a goal in the park's general management plan or other relevant National Park Service planning documents.

Based on the above definition of impairment of a cultural resource, none of the alternatives would constitute an impairment of the Coast Guard station. While Alternative D would lead to major adverse affects, the Station is not necessary to fulfill the park's establishing legislation and therefore is not *key* to—although an important component of—the natural or cultural integrity of the park.

Summary of Impacts on Cultural Resources by Alternative

Alternative A: No-Action

Maintaining current management practices would have minor adverse long-term impacts to physical resources including the cultural landscape as funds continue to be limited and those available used to minimally maintain and stabilize the structures in their current conditions. Under this alternative, minor beneficial impacts can continue to be expected for the long-term for archeological resources at the Station and at the Seabord site. Both sites would continue to be monitored by rangers and remain under limited access. The oral history program would continue to add to its collection and document stories relevant to the Station and the Coast Guard.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitating the Station for adaptive use would have long-term beneficial impacts on the Station and its associated and contributing features and resources. Partnering with an educational or research organization would help to ensure a more consistent funding source which can be used to rehabilitate and maintain cultural resources, including enhancing the oral history project. Some minor adverse impacts may be anticipated to potential archeological

resources due to ground disturbance associated with rehabilitation, however, all activities would occur under NPS guidelines for archeology and appropriate mitigation measures would be employed.

Alternative C: Relocation

Relocating the Station would result in major adverse effects as it is taken out of the context which contributes to its eligibility for the National Register of Historic Places and would likely lead to even less funding—even if the physical integrity of the buildings are maintained. Archeological resources could experience both short-term adverse effects and long-term beneficial effects as there would be ground disturbance during relocation which would be mitigated through preservation and stabilization measures.

Alternative D: Demolition

Demolition of the structures would lead to major adverse affects of all the cultural resources associated with the complex. The loss would be permanent and irretrievable. Any study of the resource would have to rely on documentation of the physical and social aspects of the Station. Archeological resources could experience beneficial impacts if the hook continues to experience sand deposition from storms and other natural phenomenon.

The Boat House.

B. Natural & Ecological Resources

Analogous to the previous section regarding cultural resources, NPS is also steward of some of the nation's most important and unique natural and ecological resources. Many of these resources are considered rare, threatened or endangered and like cultural resources are protected under various laws, proclamations, Executive Orders and regulations. Relevant laws and policies are addressed under each resource topic.

Coastal Zone Management Act as amended through PL 104-150 (1972)—The National Oceanic and Atmospheric Administration approved the Virginia Coastal Resources Management Program. Accordingly, federal activities which are reasonably likely to affect any land or water use or natural resources of Virginia's designated coastal resources management area must be consistent with the enforceable policies of the Virginia Coastal Resources Management Program. The park is in compliance with both Virginia and Federal coastal zone management policies and consults with appropriate state and federal agencies when conducting resource planning. All the alternatives considered in this EA would either retain current land use on the hook or decrease the intensity through removal or demolition of the structures, having negligible to no impacts on the coastal zone.

See Appendix item C for NPS's Consistency Determination under CZMA for the preferred alternative.

The Station complex and landscape.

1. Vegetation

Much of the historic vegetation information in the CLI report was derived from aerial and site photographs. It would be very difficult to determine what kind of vegetation existed prior to the Station, as the island was in a constant state of flux, but it is known that the hook was lower, subject to more frequent overwash and likely dominated by various grass species. Man-made stabilization through artificial dunes has made the site more stable, and a good record of site conditions can be pieced together from historic photographs.

Three major ecological communities exist at the Station complex including beach, vegetated dune and salt marsh. According to the 1994-95 Natural Resources Vegetation Inventory [USFWS], the following vegetation groups are found in and around the Coast Guard Station property:

Shrubland

1) Groundsel Bush/High Tide bush (*Baccharis halimifolia*)
   Marsh Elder/Big-leaf Sumpweed (*Iva frutescens*)
   Saltmeadow Cordgrass (*Spartina patens*)
2) Wax Myrtle/Tallow Shrub/Southern Bayberry (*Myrica cerifera*)
   Groundsel Bush (*Baccharis halimifolia*)
   Saltmeadow Cordgrass (*Spartina patens*)
3) Southern Bayberry (*Myrica cerifera*)
   Penny-wort (*Hydrocotyle spp.*)
4) Northern Bayberry (*Myrica pennsylvanica*)
   Buttonweed (*Diodia teres*)


CLI Report, NPS.

Dwarf-shrubland

1) Sand Heather (*Hudsonia tomentosa)*
   Switchgrass (*Panicum amarum),*
   Panicgrass *(Amarulum)*

Sparse shrubland

1) Northern Bayberry (*Myrica pensylvanica*)
   Little Bluestem (*Schizachyrium scoparium ssp. littorale*)
   Hyssopleaf Thoroughwort (*Eupatorium hyssopifolium)*

Upland Herbaceous Vegetation

1) American Beach Grass (*Ammophila breviligulata*)
   Switchgrass (*Panicum amarum),*
   Panicgrass *(Amarulum)*

Wetland Herbaceous Vegetation

1) Saltmarsh Cordgrass (*Spartina alterniflora*)
   Seaweed, fucus (*Ascophyllum nodosum)*
2) Saltmeadow Cordgrass (*Spartina patens*)
   Inland Saltgrass (*Distichlis spicata*)
   Bushy Seaside Tansy (*Borrichia frutescens)*

The patterns that the vegetative groups form describe the ocean to cove landscape and are at least partially reflective of the dune fencing practices of the 1960s. From the shorelines moving towards the center of the island there are the following general vegetation distributions: naturally occurring unvegetated areas, or beach, moving to dwarf shrubland, shrubland, and mixed herbaceous species, or dune. Pockets of marshland can be found within the interdune area as well as closer to the shorelines. The taller dunes consisting of dwarf shrubland clearly reflect the fencelines seen in the 1966 aerial photograph.

Activity around the buildings and roadway have kept the landscape of the station complex relatively open; whereas shrubland and vegetated dunes completely surrounds the immediate area. The open yard space south of the station complex is currently not managed as lawn and is basically sand. In addition, several eastern red cedars (*Juniperus virginiana*) are found around the Coast Guard Station complex. This is a native species presently found widely on the island and is also a species that is widely planted for ornamental purposes in the region.


CLI Report, NPS.
The Station complex and landscape.

There are a number of non-native plant species (regionally common naturalized species) found at the CG Station, none of which, however, are considered aggressive invaders. The site is periodically monitored for the presence of invasive non-native plant, a practice that continue under all of the alternatives. None of the alternatives is expected to increase the potential that non-native invasive plants are introduced or their abundance increased.

Definitions of Intensity Levels for Vegetation

Negligible

Impacts would have no measurable or perceptible changes in plant community size, integrity, or continuity.

Minor
Impacts would be measurable or perceptible but would be localized within a relatively small area. The overall viability of the plant community would not be affected and, if left alone, would recover.

Moderate
Impacts would cause a clearly detectable change in the plant community (e.g. abundance, distribu-tion, quantity, or quality); the impact would remain localized but would be clearly detectable and could have an appreciable impact on individual species.

Major
Impacts to the plant community would be substantial, highly noticeable, and permanent.

American beach grass.

Impacts to Vegetation by Alternative

Alternative A: No-Action

Under this alternative access to the Station continues to be limited and traditional circulation patterns are generally followed. Maintaining current management practices would have negligible impacts to existing natural vegetation communities within and adjacent to the station complex. The extent of the maintained landscape associated with the facility would remain constant and use patterns would not affect the surrounding natural vegetation communities.

Alternative B: Rehabilitation for Adaptive Use

During rehabilitation activities, minor short-term adverse impacts to vegetation can be anticipated. Mitigation measures would include clearly demarcating paths that work crews and other equipment should follow.

Once rehabilitation is completed negligible impacts to vegetation can be anticipated as access is made available to researchers and visitors and use of the facility increases. Access by visitors and user groups would, however, be supervised, ensuring naturally occurring vegetation and dunes are not affected. A circulation plan depicting sensitive vegetation that should be avoided could be made available and could be used as part of the educational or interpretive program.

Alternative C: Relocation

Relocating the Station complex would have moderate short-term adverse impacts on current vegetation while the relocation process is actually taking place. Disturbances during the relocation process would have an impact on plant quality. In the long-term, positive minor to moderate impacts would be expected, allowing full recovery from any damage as well as a return to natural conditions with an increase in plant community size, integrity and continuity. There is a slight potential for encroachment by non-native invasive plants species. This potential would be minimized by periodic surveillance of the site for non-native species and appropriate control action should they be discovered.

Alternative D: Demolition

Demolition would have long-term moderate beneficial impacts on all plant communities that were at or near the Station as plant community size, integrity


Freshwater marsh.

and continuity are likely to increase with the reduction of human access and use in the long-term. Since the man-made dunes are higher in elevation than what we know of historical conditions, a new dune pattern would eventually become established, similar to the dunes in adjacent areas and subject to overwash as noted earlier. This would eventually foster different plant community and a shift toward conditions that would likely have occurred if the Station had never been built, resulting in a beneficial impact by promoting and maintaining native wetland and coastal vegetation.

Cumulative Impacts on Vegetation

The lead abatement project would have positive, long-term minor impacts on vegetation for all the alternatives. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements project would not have any impacts on any of the alternatives on vegetation.

2. Wildlife & Aquatic Life and their Habitats

NPS Organic Act (16 USC 1)—

Directs parks to conserve wildlife unimpaired for the enjoyment of future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. According to NPS *Management Policies 2001,* the restoration of native species is a high priority (sec. 4.1). Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integ-rity of plants and animals.

This EA will deal mainly with those wildlife species found on the hook and adjacent waters.

CL Report, NPS.

Birds

The Chincoteague National Wildlife Refuge (CNWR) provides an ideal and protected environment for both resident and migratory species. The combination of Assateague Island's natural assets and the refuge's wildlife habitat enhancement activities has established the area as one of Eastern North America's most important bird management areas. More than 300 species use the refuge for nesting, wintering, or feeding and resting during migration. The refuge ranks fourth in diversity among 454 sites censused in the US, east of the Rockies and is important for many species on an international scale. The refuge ranked second in diversity of shorebird species from among all 450 sites in the International Shorebird Survey network (Manomet Bird Observatory, 1985) and in 1990 the barrier islands of Virginia and Maryland were dedicated as part of the International Shorebird Reserve.

Toms Cove Hook and the adjacent waters provide important breeding, wintering and migratory stopover habitat for a wide array of resident, seasonal and transitory bird species including neotropical migrants, waterfowl, colonial

waterbirds and shorebirds. The open sandy beaches and washover flats found on the hook are particularly important as breeding sites for a variety of shorebirds, such as common, least and gull-billed terns *(sterna nilotica)*, piping plovers *(charadrius melodus)*, willets *(catoptrophorus semipalmatus)* and oystercatchers *(haematopus ostralegus)*. The shallow waters of Toms Cove support numerous wading birds such as egrets *(egretta garzetta)*, herons *(ardeidae)* and ibis *(threskiornithidae)*, and during the winter months, large numbers of waterfowl including brant *(brantae)*, mergansers *(mergus merganser)*, loons *(gavia immer)*, and grebes *(podicipedidae)*. Birds of prey are common during certain times of the year, especially later summer and early fall when thousands of raptors stream down the Atlantic seaboard on their southbound migration.

Egrets in marsh.

Mammals

There are thirty-one mammal species that live in the Chincoteague NWR. Mammals seen on the hook—which consists predominantly of dune communities and salt marsh—and in the cove include raccoons *(procyon lotor)*, fox *(vulpae)*, rabbits *(leporidae)*, rodents *(rodentia)*, sika deer *(cervus nippon)*—an introduced species, river otter *(lutra Canadensis)* and cetaceans *(cetacea)*. The hook lacks wooded areas that provide a sense of enclosure and isolation that larger land mammals prefer.

Red fox *(vulpe vulpe)* is fairly common in brushy areas where they prey on nesting waterfowl and other ground-nesting animals. They can be a primary cause of low bird nesting success among the piping plover.

Aquatic Life

The shallow marine and estuarine waters adjacent to the hook provide excellent habitat for a wide variety of mollusks *(mollusca)*, crustaceans and finfish. Mollusks include hard shell clams *(crocea)*, whelk *(buccinum undatum)*, ribbed mussels *(geukensia demissa)*, periwinkles *(littorina littorea)* and a few wild oysters *(ostrea)*. The Cove is extensively used for hard clam aquaculture, with large areas leased for commercial production. Common crustaceans include blue and spider crabs, shrimp, and on the island itself, ghost crabs. The protected beaches of Toms Cove provide important spawning habitat for horseshoe crabs, an ancient species most closely related to spiders. Numerous finfish inhabit the Cove including sheepshead minnow, mummichog, white and yellow perch, American eel *(anguilla rostrata)*, bluefish *(pomatomus saltatrix)*, channel bass *(sciaenops ocellatus)* and spotted sea trout *(cynoscion nebulosus)*, to name just a few.

Definitions of Intensity Levels for Wildlife and Aquatic Life and their Habitats

Negligible

There would be no observable or measurable impacts to native species, their habitats, or the natural processes sustaining them. Impacts would be of short duration and well within natural fluctuations.

Minor

Impacts would be detectable, but they would not be expected to be outside the natural range of variability and would not be expected to have any long-

term impacts on native species, their habitats, or the natural processes sustaining them.

Population numbers, population structure, genetic variability, and other demographic factors for species might have small, short-term changes, but long-term characteristics would remain stable and viable. Occasional responses to disturbance by some individuals could be expected, but without interference to feeding, reproduction, or other factors affecting population levels.

Key ecosystem processes might have short-term disruptions that would be within natural variation. Sufficient habitat would remain functional to maintain viability of all species. Impacts would be outside critical reproduction periods for sensitive native species.

Moderate
Mortality or interference with activities necessary for survival can be expected on an occasional basis, but is not expected to threaten the continued existence of the species in the park unit.

Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they could be outside the natural range of variability for short periods of time. Population numbers, population structure, genetic variability, and other demographic factors for species might have short-term changes, but would be expected to rebound to pre-impact numbers and to remain stable and viable in the long term. Frequent responses to disturbance by some individuals could be expected, with some negative impacts to feeding, reproduction, or other factors affecting short-term population levels.

Key ecosystem processes might have short-term disruptions that would be outside natural variation (but would soon return to natural conditions). Sufficient habitat would remain functional to maintain viability of all native species. Some impacts might occur during critical periods of reproduction or in key habitat for sensitive native species.

Major
Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they would be expected to be outside the natural range of variability for long periods of time or be permanent.

Population numbers, population structure, genetic variability, and other demographic factors for species might have large, short-term declines, with long-term population numbers significantly depressed. Frequent responses to disturbance by some individuals would be expected, with negative impacts to feeding, reproduction, or other factors resulting in a long-term decrease in population levels. Breeding colonies of native species might relocate to other portions of the park.
Key ecosystem processes might be disrupted in the long term or permanently. Loss of habitat might affect the viability of at least some native species.

Bottlenose dolphin.

Impacts to Wildlife and Aquatic Life and their Habitats by Alternative

Alternative A: No-Action

There would be negligible impacts to wildlife and aquatic life as a result of the maintenance of current management practices. As the Station is not used with any regularity, there is little foot traffic and minimal vehicle access. The limited

amount of small boat traffic associated with the Station is insignificant by comparison to overall vessel use in the area and, as such, has negligible impacts on aquatic and terrestrial wildlife.


Wild horses.

Alternative B: Rehabilitation for Adaptive Use

Moderate short-term impacts to wildlife from displacement could result during rehabilitation. Since the facilities would not be expanded and the use of the site would not be greatly increased, it is expected that wildlife would resume normal use of the area once rehabilitation activities are completed.

Repairs to the existing dock—which includes the potential replacement of pilings and other wooden structural components—is likely to use standard marine-use lumber which contains chemical compounds that at high concentrations can adversely impact aquatic organisms. However, given the limited scope of the needed repairs, the potential for impact is negligible.

Increasing use and access to the Station could have minor long-term adverse impacts to wildlife, and negligible impacts to aquatic life. Rehabilitating the Station for adaptive use would not relax any of the use or access restrictions currently in place to protect wildlife. It is anticipated that these restrictions would be used as part of the interpretation program to educate visitors about wildlife conservation and management efforts in the park and refuge. Visitors—whether they are scientists doing research or school groups—are likely to appreciate and abide by any of the park's management, access and circulation restrictions.

Alternative C: Relocation

Relocating the Station would likely have some short-term moderate adverse impacts on wildlife while relocation activities are occurring. Large vehicles and construction equipment could disturb some wildlife feeding and resting activities. In addition, relocation would entail the removal of the boathouse and associated pier structures and pilings. The piling removal would likely cause temporary increases in suspended sediment and loss of water clarity, disruption of associated benthic invertebrate communities, loss of "hard" substrate used by aquatic organisms, and the possible re-suspension of pollutants incorporated in the sediments. These impacts are minor in scope and intensity with a quick recovery time.

All relocation activities would be timed to avoid crucial times of the year, such as during the breeding season of colonial waterbirds, including the piping plover.

Once the relocation is complete, long-term moderate beneficial impacts would likely occur as the Station property reverts to natural habitat conditions. However, reversion to natural conditions and the associated shift in habitat types is likely to favor some species over others. For example, lower dunes and more frequent overwash may increase suitability for ground nesting shorebirds while reducing the area's suitability for certain mammals. Impacts would be negligible in the long-term for aquatic life.


www.nps.gov/ASIS.

All demolition and removal activities would be timed to avoid crucial times of the year, such as during the breeding season of colonial waterbirds, including the piping plover.

Alternative D: Demolition

Similar to Alternative C, demolition activities could have some short-term moderate impacts on wildlife. Large vehicles and equipment could disturb some wildlife feeding and resting activities. In addition, demolition would entail the removal of the boathouse and associated pier structures and pilings. The piling removal would likely cause temporary increases in suspended sediment and loss of water clarity, disruption of associated benthic invertebrate communities, loss of "hard" substrate used by aquatic organisms, and the possible re-suspension of pollutants incorporated in the sediments. These impacts are minor in scope and intensity with a quick recovery time.

All demolition and removal activities would be timed to avoid crucial times of the year, such as during the breeding season of colonial waterbirds, including the piping plover.

Once demolition and removal are complete it is likely that wildlife and their habitats on the hook would experience long-term moderate beneficial impacts as a result of decreased human access and the increase of natural habitat area. Also similar to Alternative C, demolition is likely to result in habitat changes that will influence the species-specific habitat suitability of the area. Impacts would be negligible in the long-term for aquatic life.

Cumulative Impacts on Wildlife and Aquatic Life and their Habitats

The lead abatement project would have positive, long-term minor impacts on wildlife and aquatic life and their habitats for all the alternatives. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements project would not have any impacts on wildlife and aquatic life and their habitats under any of the alternatives.

3. Rare, Threatened, Endangered (RTE) or Special Concern Species and their Habitats

Endangered Species Act (ESA)—

Section 7 of the ESA requires that a federal agency consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service on any action that may affect federally-listed endangered or threatened species or candidate species, or that may result in adverse modification of critical habitat.

NPS Management Policies 2001—

state that potential impacts of agency actions will also be considered on state or locally listed species. The National Park Service is required to control access to critical habitat of such species, and to perpetuate the natural distribution and abundance of these species and the ecosystems upon which they depend.

Piping Plover *(charadrius melodus)*

The piping plover, a threatened species protected under the Endangered Species Act since January, 1986, nests on sandy or cobbly beaches and washover flats created and maintained by storms. Plovers begin displaying territorial behavior

in mid-March. Following elaborate courtship rituals, the pair forms a shallow depression in the sand to serve as a nest. Usually four eggs are laid. The eggs hatch in about 25 days and surviving young fly in about 30 days. According to the USFWS Piping Plover Recovery Plan, annual reproductive success of 1.5 chicks fledged per breeding pair is needed to increase the piping plover population to sustainable levels.

Piping plover.

Factors that have contributed to the decline of the piping plover along the Atlantic Coast include human disturbance, habitat loss from coastal development and shoreline stabilization activities, and depredation by a variety of predators such as raccoons, foxes and gulls that prey on eggs and chicks.

Since monitoring began in 1988, the number of piping plovers using the hook region of CNRW has varied between 14 and 38 breeding pairs. Since 2000, the hook area has been particularly productive with an average of 31 breeding pairs producing an average of 2 chicks per pair. Compared to other locations in the plover's southern breeding range, productivity at CNWR is above average.

Routine management activities during the plover breeding season have traditionally included intensive monitoring, predator control, protection of nests using fenced exclosures, and visitor use management though access restrictions, including both partial and complete closures of the Off-Road Vehicle route traversing the hook.

The Commonwealth of Virginia Department of Conservation and Recreation provided the NPS with a listing of all state rare, threatened and endangered species known to occur within a two-mile and half-mile radius of the Station complex. In most cases, the listed species occur outside of the area that would be affected by implementation of any of the alternatives. For those beach-dwelling species that may occur in close proximity to the Station complex (Wilson's Plover, Spectral Tiger Beetle, Seaside Knotweed, Seaside Heliotrope and Seaside Plantain), the potential effects would be similar to those described for Piping Plover and Seabeach Amaranth. See DCR response letter in the appendix for a complete species list.

The park would continue to enforce all use and access restrictions under any of the management alternatives.

Under current management practices which seasonally restrict public use and access to sensitive habitats on the hook, piping plover populations and reproductive success have increased over the past 5 years, a trend that is expected to continue.

Atlantic Loggerhead Sea Turtle *(caretta caretta)*

Assateague Island is located at the extreme northern edge of this large sea turtle's (up to 900 lbs.) breeding habitat range. In 1969, an experimental program was initiated to expand the range of the loggerhead sea turtle by trans-locating hundreds of turtle eggs from more southerly nesting beaches to Assateague Island. The program was discontinued in 1978 with no indication of success. Scientists concluded that ambient temperatures on Assateague Island are not warm enough to produce viable young. The program may, however, help explain the occasional nesting activity observed on Assateague Island. None of these rare events is known to have successfully produced live offspring.

Sea Beach Amaranth *(amaranthus pumilus)*

Sea beach amaranth is a federally listed threatened plant endemic to Atlantic

In 1999, sea beach amaranth was "re-discovered" near the northern end of Assateague Island. Seeds from plants found in 1999 and 2000 were used to initiate a three year (2000-2002) restoration program that re-introduced more than 5,400 plants throughout the Maryland portion of Assateague Island.

barrier island beaches from Massachusetts to South Carolina. The species inhabits upper beaches and overwash terraces and, in the absence of storm disturbance which creates and maintains favorable habitat, may be eliminated by competition by more competitive species. The plant is an annual, with reproduction and seed set within the year of growth necessary to perpetuate populations. Seeds are believed to remain viable for extended periods and are thought capable of being transported over long distances.

On Assateague Island, sea beach amaranth was first recorded in 1966 during an island-wide floristic survey. The species was described as "frequent" in sparsely vegetated washover areas at several locations, including within CNWR. Subsequent surveys in the 1980's failed to relocate the species, and by the 1990's, the plant was considered to have been extirpated from Assateague Island.

In 1999, sea beach amaranth was "re-discovered" near the northern end of Assateague Island. Seeds from plants found in 1999 and 2000 were used to initiate a three year (2000-2002) restoration program that re-introduced more than 5,400 plants throughout the Maryland portion of Assateague Island. Seeds from these introduced plants have since dispersed and, beginning in 2001, increasing numbers of amaranth have been found in the Virginia portion of the Island. While no plants have yet been observed on the hook, habitat conditions in this area are considered very favorable for amaranth.

Threats to sea beach amaranth include depredation by insects and grazing animals such as deer, habitat loss by shore stabilization activities that prevent storm overwash and physical disturbance by vehicular traffic on ocean beaches.

Sea beach amaranth.

Definitions of Intensity Levels for Rare, Threatened, Endangered or Special Concern Species and their Habitats

The Endangered Species Act defines the terminology used to assess impacts to listed species as follows:

No Impact

When a proposed action would not affect a listed species or designated critical habitat. For purposes of Section 7, this would be a *no affect.*

Negligible to Minor

Impacts on special status species are discountable (i.e., extremely unlikely to occur and not able to be meaningfully measured, detected, or evaluated) or are completely beneficial. For purposes of Section 7, this would be *may affect/not likely to adversely affect.*

Moderate

When an adverse impact to a listed species may occur as a direct or indirect result of proposed actions and the impact either is not discountable or is completely beneficial. For purposes of Section 7, this would be *may affect/ likely to adversely affect.*

Major

The appropriate conclusion when the National Park Service or the US Fish and Wildlife Service identifies situations in which the proposal could jeopardize the continued existence of a proposed species or adversely modify critical habitat to a species within or outside park boundaries. For purposes of Section 7, this would be *is likely to jeopardize proposed species/adversely modify proposed critical habitat.*

Impacts to Threatened, Endangered or Special Concern Species and their Habitats by Alternative

Alternative A: No-Action

Under current management practices which seasonally restrict public use and access to sensitive habitats on the hook, piping plover populations and reproductive success have increased over the past 5 years, a trend that is expected to continue. Habitats suitable for sea beach amaranth and loggerhead sea turtle nesting generally overlap with that used by piping plover and are therefore protected as well. As such, this alternative would have a negligible impact and is not likely to adversely affect RTE species and species of special concern. For purposes of Section 7, this would constitute no affect.

Eastern hognose snake.

Alternative B: Rehabilitation for Adaptive Use

During rehabilitation activities—which would not occur during the plover nesting season—some negligible to minor short-term impacts could affect RTE species and species of special concern and their habitats. All precautionary measures would be employed during rehabilitation activities to ensure a minimum of disturbance. For purposes of Section 7, this constitutes a finding that rehabilitation activities may affect/not likely to adversely affect RTE species and their habitats.

All transportation to the Station during the piping plover breeding season would occur via water, thereby preventing vehicular impacts to breeding habitat and disruption of nesting activities.

Rehabilitating the Station for adaptive use would increase the number of visitors both for day-trips and short and medium-term overnight stays (researchers, students, special programs). All transportation to the Station during the piping plover breeding season would occur via water, thereby preventing vehicular impacts to breeding habitat and disruption of nesting activities. In addition, the park would develop additional use and access restrictions specific to the occupying use to ensure no disruption of piping plovers by foot traffic, and to educate all visitors to the Station about the wildlife and the reasons for the restrictions. These same actions would provide protection for sea beach amaranth habitat and potential loggerhead sea turtle nesting activity. Alternative B, therefore, would have negligible adverse impacts in the long-term and for purposes of Section 7 may affect/not likely to adversely affect these species or any other RTE species or species of special concern.

Alternative C: Relocation

As in previous impact analyses regarding other resources, there would be varied phases of impact with relocating the Station. Under this alternative, the park would accomplish actual relocation of the structures before or after the plover nesting season. During relocation there could be some short-term negligible to minor adverse affect and would lead to a Section 7 finding of may affect/not likely to adversely affect species in the short-term.

In the long-term, this action would have no impact/no affect on the plover, sea turtle or amaranth and their habitats and the reduction of human activity may even have some minor to moderate beneficial impacts.

Alternative D: Demolition

Demolition and removal of the structures would be accomplished after the plover nesting season and could have some short-term negligible to minor

adverse affect and would lead to a Section 7 finding of may affect/not likely to adversely affect species in the short-term.

As in Alternative C, in the long-term, this action would have no impact/no affect on the plover, sea turtle or amaranth and their habitats and the reduction of human activity may even have some minor to moderate beneficial impacts.

Cumulative Impacts on Threatened, Endangered or Special Concern Species and their Habitats

The lead abatement project would have positive, long-term minor impacts on threatened, endangered or special concern species and their habitats for all the alternatives. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements project would not have any impacts on threatened, endangered or special concern species and their habitats under any of the alternatives.

4. Water Resources, Wetlands & Water Quality

Clean Water Act of 1972, as amended 33 USC 1251-1387—

The purpose of the Clean Water Act is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters." The U.S. Army Corps of Engineers has been charged with evaluating Federal actions that result in the potential degradation of the waters of the United States and issuing permits for actions consistent with the Clean Water Act. All regulations would be adhered to by NPS. A joint permit application would be completed and submitted to the Commonwealth of Virginia for any proposed tidal and nontidal wetlands, waters of the U.S., and nontidal wetland buffer impacts that are determined to be jurisdictional according to the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual.

Executive Orders 11990, Wetland Protection—

This executive order directs NPS to avoid, to the extent possible, the long- and short-term adverse impacts associated with modifying or occupying wetlands. They also require NPS to avoid direct or indirect support of wetland development whenever there is a practical alternative.

Fowlers toad.

The U.S. Environmental Protection Agency has developed national recommended ambient water quality criteria for approximately 120 priority pollutants for the protection of both aquatic life and human health—through ingestion of fish/shellfish or water (US EPA 1999). These criteria have been adopted as enforceable standards by most states. The NPS *Management Policies 2001* state that the Park Service will "take all necessary actions to maintain or restore the quality of surface waters and ground waters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations".

Freshwater wetlands on Chincoteague NWR occur as natural low points in the dunes, flats or impounded areas. The USFWS has graded and impounded large

areas of the island to create freshwater and brackish wetlands for waterfowl and shorebird habitat. On the hook, low areas between the beach ridges and dunes collect rainwater and support wetland vegetation. Tidal wetlands occur along most of the shoreline of Toms Cove.

Spartina patens marsh.

No natural freshwater streams or lakes exist in the refuge. Rainfall and overwash are the only sources of surface water. Freshwater ponds and impoundments may become brackish to highly saline due to overwash, salt spray or accumulation of salt residue as freshwater evaporates. Evaporation and transpiration account for major surface water depletion during the summer months. Although generally fresh, the shallow groundwater beneath the island may also become temporarily brackish because of these same influences. The drinking water supply for the Station comes from a deep (> 200 feet) well located on site.

Domestic wastewater generated by the Station is treated in a dual vault septic system and drainfield located immediately adjacent to the main Station house. The system was replaced/upgraded in 1999 and sized to accommodate normal use by approximately 8 full time residents. The system meets state and county standards.

Executive Order 11988, Floodplain Management—
The project area is located entirely within Flood Zone AE (special flood hazard areas inundated by 100-year flood with base flood elevations determined), an area of 100-year floodplain as defined by the Flood Insurance Rate Maps for Accomack County, Virginia (FEMA).

This EO requires all that federal agencies evaluate the potential effects of any actions it may take in a floodplain. NPS compliance with EO 11988 is guided by NPS Director's Order #77-2 Floodplain Management and the companion Procedural Manual.

When a proposed action is determined to involve floodplains, the general course of action prescribed by DO #77-2 is to assess the potential consequences of the action, identify and evaluate feasible alternatives, and document the results of the decision-making process in a Statement of Findings available to the public for review. Certain actions are, however, exempt from this process. These are usually minor actions involving water-dependant facilities (such as picnic facilities or foot trails) or activities with minimal potential for significant adverse effect on floodplains.

An additional class of excepted actions include those related to the management and use of historic structures, sites, or artifacts whose locations are integral to their significance. Such is the case with actions proposed for the future use and treatment of the Station, a historic resource intimately linked to Toms Cove Hook.

Because the alternatives proposed by this EA are exempted actions involving a historic site and structures, no further action is required to comply with EO 11988.

Definitions of Intensity Levels for Water Resources, Wetlands & Water Quality

Negligible

Impacts (chemical, physical, or biological impacts) would not be detectable, would be well within water quality standards or criteria, and desired water quality conditions.

Minor

Impacts (chemical, physical, or biological impacts) would be detectable but would be well below water quality standards or criteria and desired water quality conditions.

Moderate

Impacts (chemical, physical, or biological impacts) would be detectable but would be at or slightly below water quality standards or criteria. Historical baseline or desired water quality conditions could be altered on a short-term basis.

Major

Impacts (chemical, physical, or biological impacts) would be detectable and would be frequently altered from the historical baseline or desired water quality conditions; and/or chemical, physical, or biological water quality standards or criteria would be slightly and singularly exceeded on a short-term basis.

Assateague beach.

Impacts to Water Resources, Wetlands & Water Quality by Alternative

Alternative A: No-Action

Maintaining current management practices would have negligible impacts on water resources and wetlands in the long-term. Activities with potential to affect wetlands and water resources (wastewater effluent disposal and use of motor vessels to access the station) would remain at their existing low levels.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitating the complex for adaptive use would have minor long-term adverse impacts to water quality and wetlands. It is anticipated that increased use of motor vessels to access the Station (two or fewer trips per day during periods of use) may have the potential for some minor increases in hydrocarbon pollutants, but well below water quality standards needed to maintain the integrity and current conditions of water resources in Toms Cove.

Use and occupancy of the Station would increase the amount of domestic wastewater being treated and discharged into the shallow groundwater beneath and adjacent to the complex. However, the existing septic system is correctly sized for the anticipated demand, meets current standards for wastewater treatment systems, and is sufficiently distant from Toms Cove to prevent adverse impacts to surface waters.

Alternative C: Relocation

Relocating the structures would have the potential for moderate adverse impacts in the short-term as construction equipment and supplies are brought to the hook. Sediment would have to be disturbed, potentially affecting run-off. The area would be mitigated for soil and sand disturbance and any long-term adverse impacts would be negligible.

In addition, relocation would entail the removal of the boathouse and associated pier structures and pilings. The piling removal would likely cause temporary increases in suspended sediment and loss of water clarity, disruption of associated benthic invertebrate communities, loss of "hard" substrate used by aquatic organisms, and the possible re-suspension of pollutants incorporated in the sediments. These impacts are minor in scope and intensity with a quick recovery time.

Assateague beach.

Alternative D: Demolition

As in Alternative C, demolition and removal of the structures would have the potential for moderate adverse impacts in the short-term as construction equipment is brought to the hook. Sediment would have to be disturbed, potentially affecting run-off. The area would be mitigated for soil and sand disturbance and any long-term adverse impacts would be negligible.

Cumulative Impacts on Water Resources, Wetlands & Water Quality

The lead abatement project would have positive, long-term minor impacts on water resources, wetlands and water quality for all the alternatives. Lead abatement will remove any air-borne contaminants that can be carried by wind which can end up in the ground or water. The energy efficiency improvements project would not have any impacts on water resources, wetlands and water quality under any of the alternatives.

Impairment

For the purposes of this analysis, resource impairment is defined as follows:

Vegetation

The action would contribute substantially to the deterioration of park vegetation to the extent that the park's vegetation would no longer function as a natural system. In addition, these adverse major impacts to park resources and values would contribute to deterioration of these resources to the extent that the park's purpose could not be fulfilled as established in its enabling legislation; affect resources key to the park's natural or cultural integrity or opportunities for enjoyment; or affect the resource whose conservation is identified as a goal in the park's general management plan or other park planning documents.

Wildlife and Aquatic Life and their Habitats

Some of the major impacts described above might be an impairment of park resources if their severity, duration, and timing resulted in the elimination of a native species or significant population declines in a native species, or they precluded the park's ability to meet recovery objectives for listed species. In addition, these adverse, major impacts to park resources and values would contribute to deterioration of the park's wildlife resources and values to the extent that the park's purpose could not be fulfilled as established in its enabling legislation; affect resources key to the park's natural or cultural integrity or opportunities for enjoyment; or affect the resource whose conservation is identified as a goal in the park's general management plan or other park planning documents.

Rose pogonia.

Adaptive use of the Station complex would necessitate mitigation measures such as an active education and interpretation program that educates both visitors and short-term residents...

Rare, Threatened, Endangered or Special Concern Species and their Habitats

The appropriate conclusion—is likely to jeopardize proposed species/adversely modify proposed critical habitat—when the National Park Service or the U.S. Fish and Wildlife Service identifies situations in which the proposal could jeopardize the continued existence of a proposed species or adversely modify critical habitat to a species within or outside park boundaries.

Water Resources, Wetlands & Water Quality

Impacts are chemical, physical, or biological impacts that would be detectable and that would be substantially and frequently altered from the historical baseline or desired water quality conditions and/or water quality standards, or criteria would be exceeded several times on a short-term and temporary basis. In addition, these adverse, major impacts to park resources and values would contribute to deterioration of the park's water quality and aquatic resources to the extent that the park's purpose could not be fulfilled as established in its enabling legislation; affect resources key to the park's natural or cultural integrity or opportunities for enjoyment; or affect the resource whose conservation is identified as a goal in the park's general management plan or other park planning documents.

Based on the above definitions of impairment for natural and ecological resources including vegetation, water and rare, threatened and endangered species, none of the alternatives would impair said resources.

Summary of Impacts on Natural and Ecological Resources by Alternative

Alternative A: No-Action

Maintaining current management practices would have negligible impacts to vegetation, wildlife, aquatic life, threatened, endangered or special concern species and their habitats, as well as water resources, wetlands and water quality. With little foot traffic and minimal vehicle access, natural resources including aquatic, terrestrial and plant life are expected to remain in their current conditions or perhaps even improve over time such as with the reproductive success of the piping plover.

Alternative B: Rehabilitation for Adaptive Use

During rehabilitation activities, short-term impacts to natural resources are likely to occur as work crews and equipment access the area. Mitigation measures such as clearly demarcating access paths would be planned before any work begins. The restrictions currently enforced during the piping plover nesting season would continue during rehabilitation activities.

Rehabilitating the Station for adaptive use takes into consideration an increase in human foot traffic and in boat traffic. Adaptive use of the Station complex would necessitate mitigation measures such as an active education and interpretation program that educates both visitors and short-term residents participating in research and other programs where and when access to certain areas is prohibited, or is to be accesses only through a guide. The restrictions

currently enforced during the piping plover nesting season would remain.

In summary, minor short-term impacts to vegetation; moderate short-term impacts to wildlife, aquatic life and their habitats; negligible to minor short-term impacts on threatened, endangered or special concern species and their habitats are anticipated during rehabilitation activities.

Once use of the Station is underway, negligible impacts to vegetation; minor long-term adverse impacts to wildlife; negligible impacts to aquatic life; long-term negligible impacts to threatened, endangered or special concern species and their habitats; and minor long-term impacts to water resources, wetlands and water quality are anticipated during use of the station complex as a research and education facility.

Alternative C: Relocation

As in Alternative B, relocating the Station would result in two tiers of impacts, during actual relocation and after relocation is completed and the site mitigated. During relocation, crews and equipment could have some short-term adverse impacts on natural resources. Mitigation measures, as in Alternative B, would include advanced planning for the best paths for access and areas to be avoided. Once relocation is completed, minor to moderate positive impacts can be anticipated as the site will have very little human access. As in all the alternatives, the restrictions regarding the piping plover nesting season would be observed.

...relocating the Station would result in two tiers of impacts, during actual relocation and after relocation is completed and the site mitigated.

In summary, short-term moderate adverse impacts on vegetation; short-term moderate adverse impacts on wildlife, aquatic life and their habitats; short-term negligible to minor adverse impacts to threatened, endangered or special concern species and their habitats; and short-term moderate adverse impacts moderate adverse impacts to water resources, wetlands and water quality are anticipated during relocation activities.

After relocation and mitigation, long-term minor to moderate positive impacts to vegetation; long-term moderate beneficial impacts to wildlife, aquatic life and their habitats; long-term minor to moderate beneficial impacts to threatened, endangered or special concern species and their habitats; and long-term minor adverse impacts to water resources, wetlands and water quality are anticipated after relocation activities have been completed.

Alternative D: Demolition

Demolishing and removing the structures would have similar long-term impacts as relocation in Alternative C. With even less human access to the area and the removal of all man-made structures, natural resources are likely to experience minor to moderate long-term beneficial impacts.

In summary, long-term minor to moderate beneficial impacts for vegetation, wildlife and aquatic life and their habitats; threatened, endangered or special concern species and their habitats are anticipated for this alternative.

C. Park Operations & Administration

Park operations and administration include all the activities and policies the park undertakes and administers to run the park. They include such things as visitor services and facilities including infrastructure, personnel, protection—law enforcement and life guard—and maintenance. Also under this category would be concerns regarding the visitor experience, including orientation, education and interpretation services.

Ranger talk.

1. Operations

Currently the park is understaffed during the summer season. The number of full time staff has remained steady over the years, however workload increases—job responsibilities and complexities—and a decrease in seasonal summer employment allows the park to provide only a minimum level of service in the summer season. For example, the park's participation in more "green" and sustainable development and operations—shell roads, solar powered showers, portable toilet facilities, etc.—has increased staff workload considerably because these types of facilities require more personnel hours to maintain than conventional "hard-engineered" facilities.

The park has taken a number of steps to decrease non-renewable energy consumption and improve the "greenness" of operations. These include, but are not limited to: recycling, use of bio-diesel fuel for the park's diesel vehicles, use of solar powered pumps to provide showers at the recreational beach, improvements in Visitor Center insulation and utility systems, use of alternative construction materials such as recycled plastics, and major changes to the infrastructure providing for recreational beach use to improve compatibility with natural barrier island processes.

The park has taken a number of steps to decrease non-renewable energy consumption and improve the "greenness" of operations.

A December 2002 report, *Analysis of Renewable Energy Systems for the Assateague Beach Coast Guard Station* evaluated the feasibility of alternative energy sources such as solar, wind and photovoltaic energy for use at the Station. The study found that the capitalized cost for these alternative energy systems were 10-times higher than grid-supplied electricity for the Station over the life of the infrastructure.

Energy efficiency improvements are underway as the main Station house. The work includes replacing all of the glass in the Station's windows and doors with high efficiency glazing, increasing the amount of insulation, and replacing appliances (stove, refrigerator) and utilities (water heater, furnace) with high efficiency versions. An emergency generator will also be installed to provide back up power in the event of problems with grid-supplied electricity. The improvements are being made to reduce energy consumption associated with ongoing use of the Station as intermittent housing for cooperators and visiting scientists.

Recurring actions associated with the Station include basic maintenance of structures and grounds, security patrols, and maintenance of infrastructure (water, septic, electricity, etc.). Manpower and funds have not been available to provide the desired levels of preventative maintenance and rehabilitation, leading to a gradual decline in the overall condition of the facility.

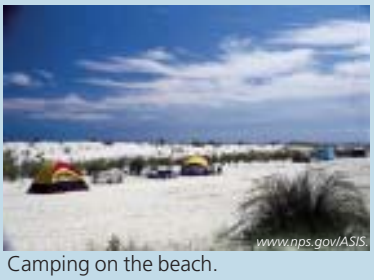
Definitions of Intensity Levels for Park Operations

Negligible:
No measurable impact to park operations.

Minor:
Park operations would be affected but the impact would not be perceptible by visitors. To the normal observer, such impacts would not be apparent. This would involve levels of increase or decrease in the park's budget and current staffing of 1-3% with a corresponding level of workload increase/ decrease.

Moderate:
Park operations would be measurably affected and the impacts would be noticeable to visitors. This would involve levels of increase or decrease in the park's budget between 4-6 % and an increase or decrease in personnel of 4-6%. Impacts would include providing more/diminishing visitor services, protection and emergency response services, facility maintenance, administrative support, and curatorial services.

Major:
Park operations would be significantly affected and visitors would be aware of changes. This would involve levels of increase or decrease in the park's budget of greater than 7% and an increase or decrease in personnel of greater than 7%. Impacts would be providing more/diminishing visitor services, protection and emergency response services, facility maintenance, administrative support, and curatorial services.



Camping on the beach.

Impacts to Park Operations by Alternative

Alternative A: No-Action

Maintaining current management practices would have negligible impacts on park operations and administration. The number of staff and resources allocated to maintaining the Station as it is would remain the same or slowly decline in the long-term.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitation of the Station would rely heavily on a partnership arrangement where the partner would provide most of the resources needed to staff and maintain the facility for educational and research activities. Park rangers would occasionally interpret the site and help to conduct other educational and interpretive programs. This alternative has the potential to have a moderate beneficial impact on park operations and administration in the long-term by reducing the current staff workload dedicated to the Station.

Alternative C: Relocation

Relocating the Station would have a moderate beneficial impact on park operations and administration in the long-term by reducing the staff workload associated with managing and maintaining the Station. The Station would be moved off the island and run by another entity, requiring little staff help from the park.

Alternative D: Demolition

As in Alternative C, this alternative would have a moderate beneficial impact on park operations and administration in the long-term by reducing the staff workload associated with managing and maintaining the Station.

Cumulative Impacts on Park Operations

The lead abatement and energy efficiency projects could add some minor adverse impacts to current staff workload as the projects are being carried out. However, improving the structures comprehensively could mean less work in the long-term as the structures are less vulnerable to weather-related and other types of general deterioration.

2. Visitor Experience

NPS Management Policies 2001

state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Because many forms of recreation may not be suitable for a national park setting, the NPS will therefore seek to:

- provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in a particular unit;
- defer to local, state, and other federal agencies; private industry; and non-governmental organizations to meet the broader spectrum of recreational needs and demands that are not dependent on a national park setting

Ranger-led programs.

Unless mandated by statute, the NPS will not allow visitors to conduct activities that:

- would impair park resources or values;
- would create an unsafe or unhealthful environment for other visitors or employees;
- are contrary to the purposes for which the park was established; or
- would unreasonably interfere with the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.

One of the park's mission goals is to ensure that "visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities."

Part of the purpose of Assateague Island NS is to offer opportunities for recreation, education, inspiration, and enjoyment. Its significance lies in the natural barrier island landscape and the natural habitats that visitors enjoy. One of the park's mission goals is to ensure that "visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities."

Visitor experiences have the potential to be greatly affected (both adversely and beneficially) by the proposed actions as the Station is the only resource in the park of its kind. Some of the character-defining features of the Station—namely its location on the cove side of a barrier island—make it regionally unique.

Definitions of Intensity Levels for Visitor Experience

Negligible

Visitors would not likely be aware of the impacts associated with changes proposed for visitor use and enjoyment of park resources.

Minor
Visitors would likely be aware of the impacts associated with proposed changes; however the changes in visitor use and experi-ence would be slight and likely short term. Other areas in the park would remain available for similar visitor experience and use without derogation of park resources and values.

Moderate
Visitors would be aware of the impacts associated with proposed changes. Changes in visitor use and experience would be readily apparent and likely long term. Other areas in the park would remain available for similar visitor experience and use without derogation of park resources and values, but visitor satisfaction may be measurably affected (visitors could be either satisfied or dissatisfied).

Major
Visitors would be highly aware of the impacts associated with proposed changes. Changes in visitor use and experience would be readily apparent and long term. Certain activities/visitor experiences would no longer be available within the park and visitor satisfaction would likely be affected.


Children's educational programs.

Impacts to Visitor Experience by Alternative

Alternative A: No-Action

Maintaining current management policies would have negligible impacts on the visitor experience in the long-term. Visitors currently can gain access to the Station through ranger-led tours when requested, however the loss of the paved road to the Station makes it necessary to conduct such tours outside of the plover nesting season. Visitors can land boats on the bay beach and visit the Station without permission.

Alternative B: Rehabilitation for Adaptive Use

This alternative would have moderate long-term beneficial impacts to park visitors as a result of rehabilitation of the Station. While visitors generally don't seek the Station out as a destination, most would benefit from the improved understanding of natural resources and barrier island ecology developed by the research programs conducted at the Station. Students utilizing the facility for education purposes would have a unique hands-on opportunity to learn about the history of the Station and the ecology of Assateague Island. In addition, rehabilitation would ensure that the Station retains its historic integrity and thereby remains available for scholarly research and heritage tourism.

Alternative C: Relocation

Relocating the Station off of Assateague Island would have moderate long-term adverse impacts on those visitors seeking to learn the historic and cultural significance and contribution of the Station. While visitors would be able to see the historic structures—probably not all of them and not in the spatial organization they were originally in—the integrity of the resources as a whole, taken out of context of the landscape would greatly diminish any interpretive or educational experiences pertaining to the historical and cultural landscape aspects of the complex.

On the other hand, for those visitors seeking a completely natural and uninterrupted view of the hook, this alternative would have a moderate long-term beneficial impact on their experience.

Demolition and removal of the structures would have a major long-term adverse impact on the visitor experience for those visitors interested in the Station as a historic and cultural resource.

Alternative D: Demolition

Demolition and removal of the structures would have a major long-term adverse impact on the visitor experience for those visitors interested in the Station as a historic and cultural resource. Visitors would have to rely on photographs and other documentation including exhibits to receive information about the Station and its relation to the landscape.

For visitors seeking a completely natural and uninterrupted view of the hook, this alternative would have moderate long-term beneficial impacts on their experience.

Cumulative Impacts on Visitor Experience

Except in Alternative D, the lead abatement and energy efficiency projects could have some minor to moderate positive impacts on visitor experiences as improvements to the Station would be apparent, making the Station more attractive and comfortable.

Conclusion of Impacts on Park Operations & Administration by Alternative

Alternative A: No-Action

Maintaining current management practices would have negligible impacts on park operations in terms of staff workload and budget. Impacts on the visitor experience would be negligible as well.

Alternative B: Rehabilitation for Adaptive Use

Rehabilitating the Station for adaptive use would have moderate beneficial impacts on park operations and moderate long-term beneficial impacts on the visitor experience. Park partners would assume many of the roles and responsibilities of running the Station as a research and education facility.

Alternative C: Relocation

Relocating the Station would have moderate long-term beneficial impacts on park operations due to staff workload reductions and moderate long-term adverse impacts on the visitor experience as the Station would be removed from its integral landscape and context. For visitors interested in the area solely for its natural beauty and recreational opportunities, having an uninterrupted view and area would have moderate long-term beneficial impacts on their experience.

Alternative D: Demolition

Demolition and removal of the Station could have minor long-term beneficial impacts on park operations as staff workload is decreased. Major long-term adverse impacts are anticipated on the visitor experience for those visitors interested in the Station as a historic and cultural resource. For visitors seeking a purely natural recreational experience with uninterrupted views of the area, this alternative would have moderate long-term beneficial impacts.

D. Cost Summary by Alternative

	Alternative A: No-Action	Alternative B: Rehabilitate for Adaptive Use	Alternative C: Relocation	Alternative D: Demolition
Description	Maintain current management practices of stabilization and minimal rehabilitation with occasional short-term active use such as housing for visiting researchers and as storage.	Rehabilitate to accommodate a range of uses that fall under environmental research and education.	Relocate the Coast Guard Station buildings off of Assateague Island.	Demolish structures and manage the site as a natural resource.
Resource Treatment	Maintain in current condition.	Rehabilitate for adaptive use using Secretary of Interior Standards.	Relocate all structures and rehabilitate. Rehabilitate site.	Demolition, removal and site rehabilitation.
5-yr Costs	200,000	100,000*	responsibility of resource management entity – not as yet identified	0
One-Time Costs	0	320,000	70,000	2,045,000
Total (to NPS)	**200,000**	**420,000**	**70,000**	**2,045,000**

*this estimated cost does not include the recurring costs for operation which would be borne by future partner or cooperator.